

## **AMENDMENTS TO THE CLAIMS**

Please amend Claims 1 and 3 and add new Claims 5-9 as follows.

### **LISTING OF CLAIMS**

1. (currently amended) An air conditioner for a hybrid vehicle, the hybrid vehicle having an engine for running the vehicle, an electrical motor generator for running the vehicle and for generating electrical power, and a battery for supplying electrical power to the electrical motor generator, the air conditioner comprising:

an air conditioning unit, to which electrical power is supplied from the battery, for performing air-conditioning operation in a passenger compartment of the vehicle; and

a control unit for controlling operation of the air conditioning unit, wherein:

when a residual charging degree of the battery becomes equal to or lower than a target degree, the electrical motor generator is driven by the engine to charge the battery; and

~~when a rotation speed of the engine is equal to or lower than a predetermined rotation speed, the control unit decreases an air conditioning capacity of the air conditioning unit, as compared with a case where the rotation speed of the engine is higher than the predetermined rotation speed.~~

the control unit gradually decreases the air conditioning capacity of the air conditioning unit from a maximum air conditioning capacity to a minimum air conditioning capacity as the rotation speed of the engine decreases from a first predetermined rotation speed to a second predetermined rotation speed that is smaller than the first predetermined rotation speed.

2. (previously presented) The air conditioner according to claim 1, wherein:  
the air conditioning unit includes a refrigerant cycle system in which refrigerant circulates; and  
the refrigerant cycle system includes an electrical compressor, operated using electrical power supplied from the battery, for compressing refrigerant.

3. (currently amended) An air conditioner for a hybrid vehicle, the hybrid vehicle having an engine for running the vehicle, an electrical motor generator for running the vehicle and for generating electrical power, and a battery for supplying electrical power to the electrical motor generator, the air conditioner comprising:

an air conditioning unit, to which electrical power is supplied from the battery, for performing air-conditioning operation in a passenger compartment of the vehicle; and

a control unit for controlling operation of the air conditioning unit, the control unit including means for calculating a power generation efficiency of the engine,  
wherein:

when a residual charging degree of the battery becomes equal to or lower than a target degree, the electrical motor generator is driven by the engine to charge the battery; and

when [[a]] the power generation efficiency due to the engine is equal to or lower than a predetermined efficiency, the control unit decreases an air-conditioning

capacity of the air conditioning unit, as compared with a case where the power generation efficiency due to the engine is higher than the predetermined efficiency.

4. (previously presented) The air conditioner according to claim 3, wherein:  
the air conditioning unit includes a refrigerant cycle system in which refrigerant circulates; and  
the refrigerant cycle system includes an electrical compressor, operated using electrical power supplied from the battery, for compressing refrigerant.

5. (new) The air conditioner according to claim 3, wherein the control unit gradually decreases the air conditioning capacity of the air conditioning unit from a maximum air conditioning capacity to a minimum air conditioning capacity as the power generation efficiency due to the engine decreases from the predetermined rotation speed.

6. (new) The air conditioner according to claim 1, wherein:  
when a rotation speed of the engine is lower than a first predetermined rotation speed, the control unit sets the air conditioning unit to a first air conditioning capacity; and  
when the rotation speed of the engine is greater than the first predetermined rotation speed, the control unit sets the air conditioning unit to a second air conditioning capacity, the second air conditioning capacity always being greater than the first air conditioning capacity.

7. (new) The air conditioner according to claim 3, wherein:

when the power generation efficiency due to the engine is lower than the predetermined efficiency, the control unit sets the air conditioning unit to a first air conditioning capacity; and

when the power generation efficiency due to the engine is greater than the predetermined rotation speed, the control unit sets the air conditioning unit to a second air conditioning capacity, the second air conditioning capacity always being greater than the first air conditioning capacity.

8. (new) An air conditioner for a hybrid vehicle, the hybrid vehicle having an engine for running the vehicle, an electrical motor generator for running the vehicle and for generating electrical power, and a battery for supplying electrical power to the electrical motor generator, the air conditioner comprising:

an air conditioning unit, to which electrical power is supplied from the battery, for performing air-conditioning operation in a passenger compartment of the vehicle; and

a control unit for controlling operation of the air conditioning unit, wherein:

when a residual charging degree of the battery becomes equal to or lower than a target degree, the electrical motor generator is driven by the engine to charge the battery; and

when a rotation speed of the engine is lower than a predetermined rotation speed, the control unit sets the air conditioning unit to a first air conditioning capacity;

and when the rotation speed of the engine is greater than the predetermined rotation speed, the control unit sets the air conditioning unit to a second air conditioning capacity, the second air conditioning capacity always being greater than the first air conditioning capacity.

9. (new) An air conditioner for a hybrid vehicle, the hybrid vehicle having an engine for running the vehicle, an electrical motor generator for running the vehicle and for generating electrical power, and a battery for supplying electrical power to the electrical motor generator, the air conditioner comprising:

an air conditioning unit, to which electrical power is supplied from the battery, for performing air-conditioning operation in a passenger compartment of the vehicle; and

a control unit for controlling operation of the air conditioning unit, the control unit including means for calculating a power generation efficiency, wherein:

when a residual charging degree of the battery becomes equal to or lower than a target degree, the electrical motor generator is driven by the engine to charge the battery;

when the power generation efficiency due to the engine is lower than a predetermined efficiency, the control unit sets the air conditioning unit to a first air conditioning capacity; and

when the power generation efficiency due to the engine is greater than the predetermined rotation speed, the control unit sets the air conditioning unit to a second

air conditioning capacity, the second air conditioning capacity always being greater than the first air conditioning capacity.